Summary of Issues in Zone 2: the Gunnison River Corridor

Geology

Current Condition

- The geology of the upstream portion of the river is largely alluvial (sediment carried downstream by the river itself), with the canyon walls composed of Brushy Basin and Salt Wash members of the Morrison formation and the Summerville/Entrada formations
    - Exception is Palmer Gulch and Leonard's Basin, where the geology consists of the Chinle formation
- Around Bridgeport, the geology of the river and the canyon walls changes to the characteristic red rock of the Kayenta/Wingate formations
- At the northernmost end of the NCA, the geology is dominated by the Salt Wash and Brushy Basin members of the Morrison formation and the Summerville/Entrada formations

Management Concerns

- Effect of recreational gold prospecting around Rattlesnake Gulch: see Recreation summary

Paleontology

Current Condition

- In the areas of the river composed of the Morrison and Chinle formations, there is a high or very high likelihood of finding fossils
- There are no known localities of fossils in the river corridor

Management Concerns

- None at this time

Water

Current Condition

- 33 miles of the Gunnison River flow through the NCA
    - Water quality on the Gunnison River is listed as impaired by the state for selenium and is being monitored for possible sediment impairment. However, this water quality impairment is not currently the result of BLM management.
- The mouths of 3 perennial creeks are located in this zone: Escalante Creek, Dominguez Creek and Kannah Creek. All 3 creeks are meeting state water quality standards
- Water flows on the Gunnison River differ greatly from the natural flow regime of the river
- Channelization and rip-rapping along the banks of the river have limited the ability of the Gunnison River to move and flood, which has impacts for vegetation, fish and wildlife.

Management Concerns

- Effects of the altered flow regime on vegetation, fish and wildlife—based on the flow of the Gunnison, alternate restoration strategies may be required.
- Level of protection for Recreational, Fish, Cultural, Historical ORVs

Policy Context

- Water flows on the Gunnison River are controlled by dams and diversions upstream of the NCA, as well as water rights downstream of the NCA
    - A recently established water right by the Black Canyon National Park assures minimum flows for fish protections and allows for seasonal releases that mimic a more natural flow regime (upstream of the NCA)
    - Senior water rights held by the Redlands Water and Power Company assure a minimum flow through the NCA (downstream of the NCA)

Vegetation

Current Condition

- The vegetation type of the river corridor is riparian within the floodplain of the river
    - The natural vegetation community along the river is dominated by Fremont Cottonwood and Coyote Willow. Other common species include cattails, spikerush, Baltic rush, wild licorice, saltgrass, alkali sacaton and sand dropseed.
    - The riparian zone of the river has shrunk as a result of water diversions, channelization and dam control
- On the terraces above the river, the natural community consists of skunkbrush, big sagebrush, greasewood, rubber and spearleaf rabbitbrush
    - On the alluvial benches above the river, there are documented populations of **Colorado hookless cactus** (federally threatened species)

Management Concerns

- The vegetative community along the river has been highly altered
    - Abundant and dominant invasive plants in this zone include tamarisk, Russian olive, Siberian elm, Russian knapweed, cheatgrass and reed canarygrass
    - In many areas, native wetland species are at less than desirable levels and are declining
    - The predominance of tamarisk has increased the frequency of fire along the river, which negatively impacts native species like cottonwoods
- Vegetation problems are mainly the result of alterations to the natural stream flow of the river. These alterations include:
    - Water diversions and dam control, which have reduced the natural variability of the river's flows
    - Channelization and rip-rapping have reduced flooding and the movement of the river, which has allowed invasive species to flourish and has prevented the regeneration of native, riparian species

Policy Context

- Conditions are expected to improve slightly over time as a result of the following:
    - Black Canyon National Park's new water right, which will be used to mimic natural peak spring flows. These peak flows will be limited due to concerns over flooding in the city of Delta
    - The introduction of the tamarisk leaf beetle has reduced the health of tamarisk and may eventually open growing space for native plants

Fish

Current Condition/Management Concerns

- This stretch of the Gunnison River is listed as critical habitat for two federally endangered fish species:
    - Colorado pikeminnow
    - Razorback sucker
- The following fish species are also federally endangered, and have potential habitat on the Gunnison River:
    - Bonytail chub
    - Humpback chub
- The following fish species are not federally listed, but are considered BLM sensitive species and occur in this stretch of the Gunnison River:
    - Bluehead sucker
    - Roundtail chub
    - Flannelmouth sucker
- The rarity of native fish species on the Gunnison River is a result of:
    - Dam control/stabilization of stream flow
    - Channelization and rip-rapping along the banks of the river
    - Impacts of dams and diversions on fish movement
    - Competition from non-native fish species, such as bass and carp
    - Declining habitat condition, as a result of unnatural water flow and dominance by invasive species
    - Selenium and over-sedimentation could become an issue that leads to further declines

Wildlife

Current Condition/Management Concerns

- Wildlife species are highly reliant on riparian systems for water, food and structure
    - The poor health of the vegetation along the Gunnison River reduces the habitat potential of this area
    - The lack of regenerating cottonwoods has negative consequences for large nesting birds like bald eagles

    - The replacement of native willows with tamarisk impacts habitat quality for many other bird species
- BLM sensitive species with the potential to occupy this zone include (C = confirmed within past 10 years, P = not documented but suitable habitat exists, ? = lesser likelihood of occurrence):
    - Canyon tree frog (P)
    - Northern leopard frog (C)
    - Desert bighorn sheep (C)
    - Peregrine falcon (C)
    - Bald eagle (C)
    - Neotropical migratory birds (C)
    - Yellow-billed cuckoo (C)
    - Longnose leopard lizard (C)

Cultural

Description

- Areas with abundant water in the desert can be assumed to have major cultural significance
    - The Gunnison River was an important corridor for both prehistoric and historic peoples in this part of Colorado
- Signs of Native American presence along the Gunnison River include:
    - Rock art
    - Lithic sites
    - Prehistoric camp sites
- The Gunnison River also played a major role in the history of European settlement in Western Colorado
    - The Gunnison and Whitman expeditions travelled along the river in search of railroad routes and minerals
    - Railroads were built along the river by the Denver & Rio Grande Western Railroad Company that connected the Grand Valley to the rest of Colorado. This railroad line greatly facilitated western expansion and connectivity with mineral and commodity markets
        - The narrow gauge and standard railroads travel along the river
        - A commuter train that brought workers from Grand Junction out to the orchards along the river once operated along these same tracks
        - Bridgeport was a railroad siding, where workers would have stayed and where fruit would have been loaded onto railroad cars
    - Orchards established along the river played a significant economic role in the region, and brought tourists to the area

Management Concerns

- Potential for vandalism and theft

Recreation

See the separate recreation briefing document.

Travel Management

Current Condition

- Four county roads access the river via Highway 50: Bridgeport, Escalante Canyon, Rattlesnake Gulch and Dominguez roads
- 3 additional user-created roads access the river from the northeast
- On the southwest side of the river, road access to the river is limited to the Dad's Flat Road, Escalante Canyon Road and Sawmill Mesa Road
- A jeep/ATV trail connects from Escalante Canyon Road to trails connecting to Sawmill Mesa Road along the southwest side of the river

Wild and Scenic Rivers

Current Condition

- The Gunnison River was determined to be eligible under the Wild and Scenic Rivers Act
    - This means the river was determined to be free-flowing and to possess at least one outstandingly remarkable value (ORV)
    - The ORVs on the Gunnison River are recreational, cultural, fish and historical values

Management Concerns

- The BLM must answer the following questions:
    - Should these ORV's be protected?
    - Is Wild and Scenic River designation the best tool to protect these ORVs?
    - Is there a commitment by non-federal entities to protect these ORVs?

Grazing

Current Condition

- On public lands along the river, permit restrictions limit grazing in riparian areas to trailing of cattle/sheep

Public Safety/Law Enforcement

Management Concerns

- Issue of trespassing and vandalism to private property is an issue in this zone